Figures for the Dewey-Burdock UIC Permits & Aquifer Exemption Brief

Dewey Burdock Project Site

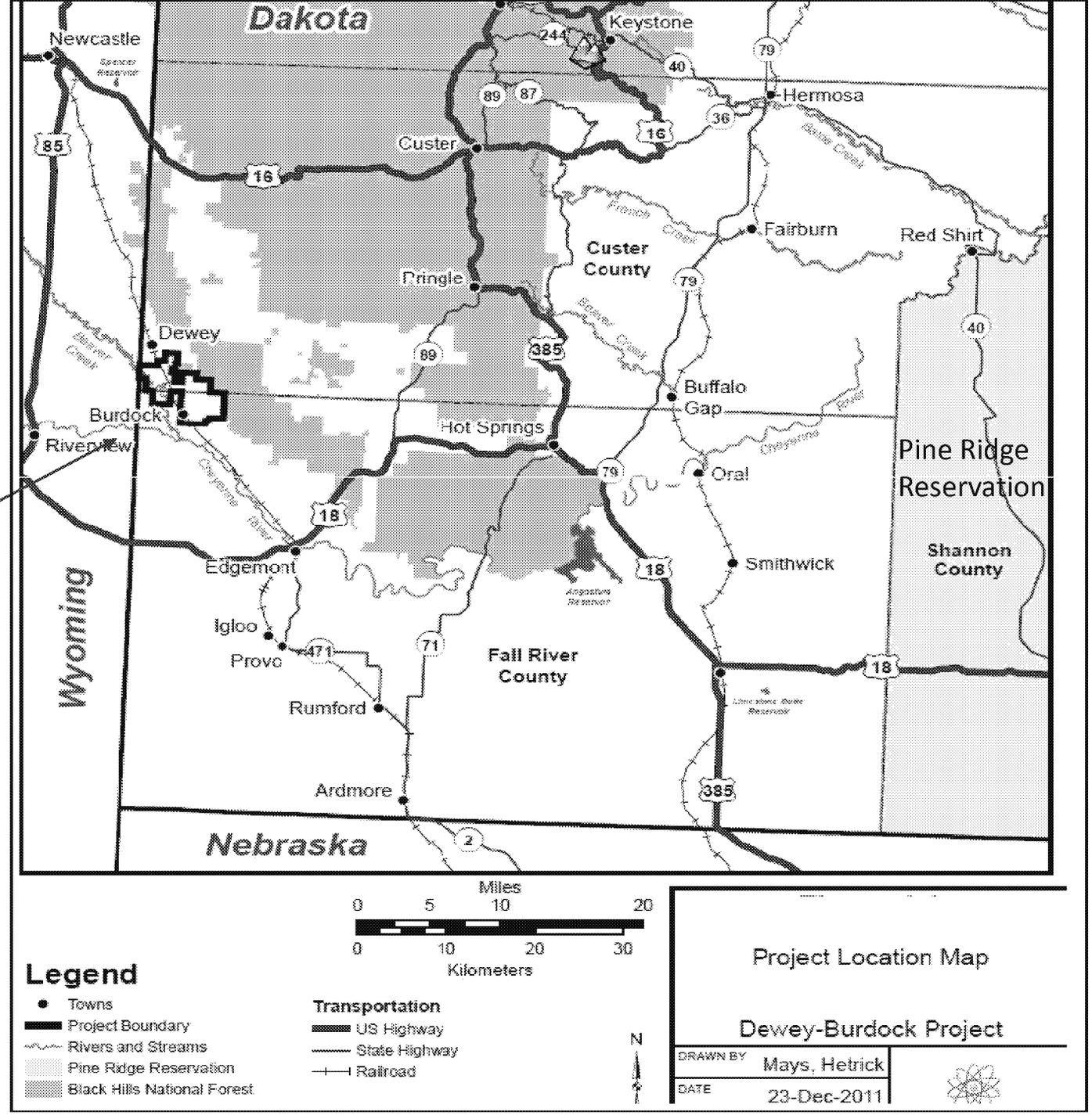


Figure 1. Location Map

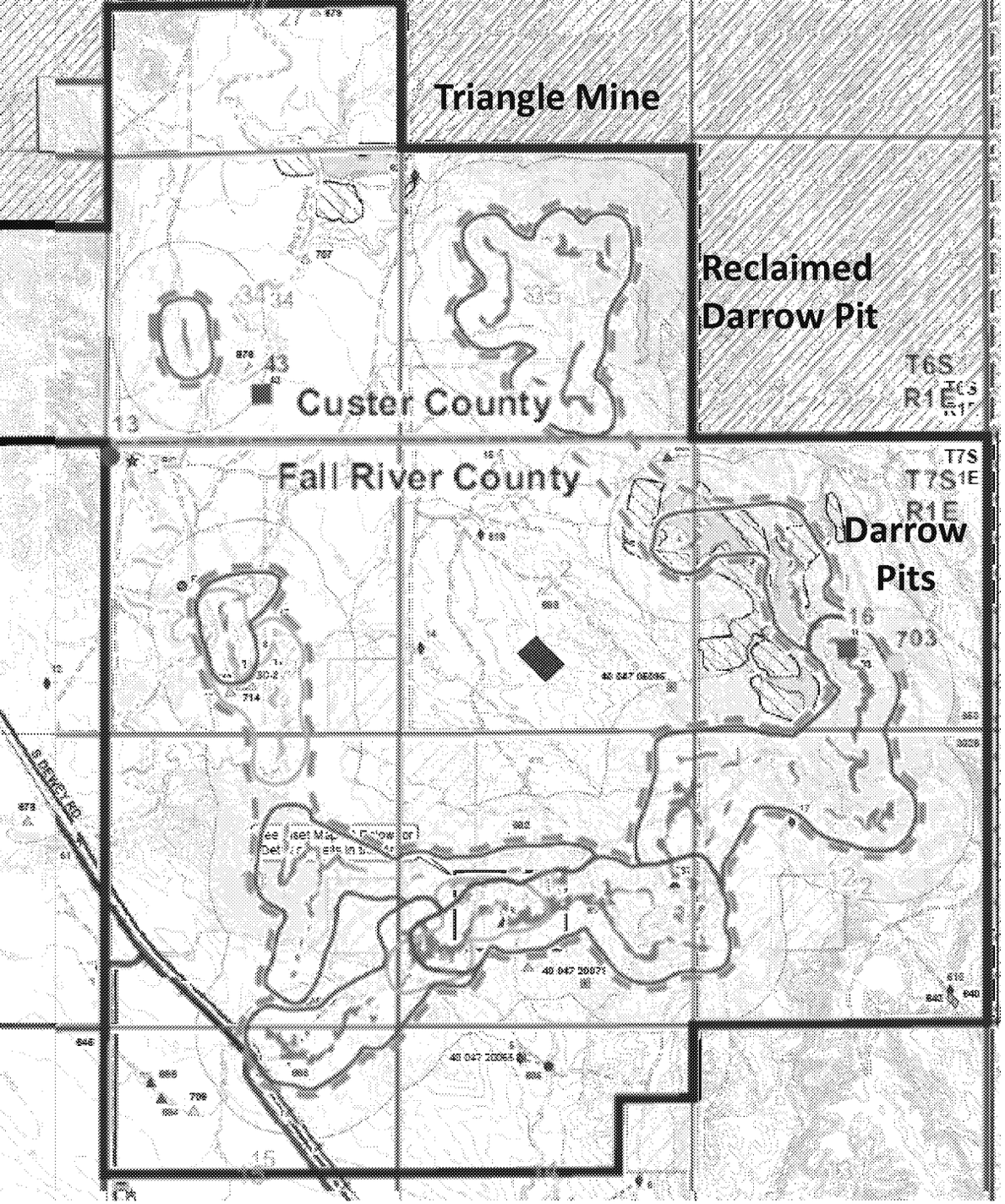
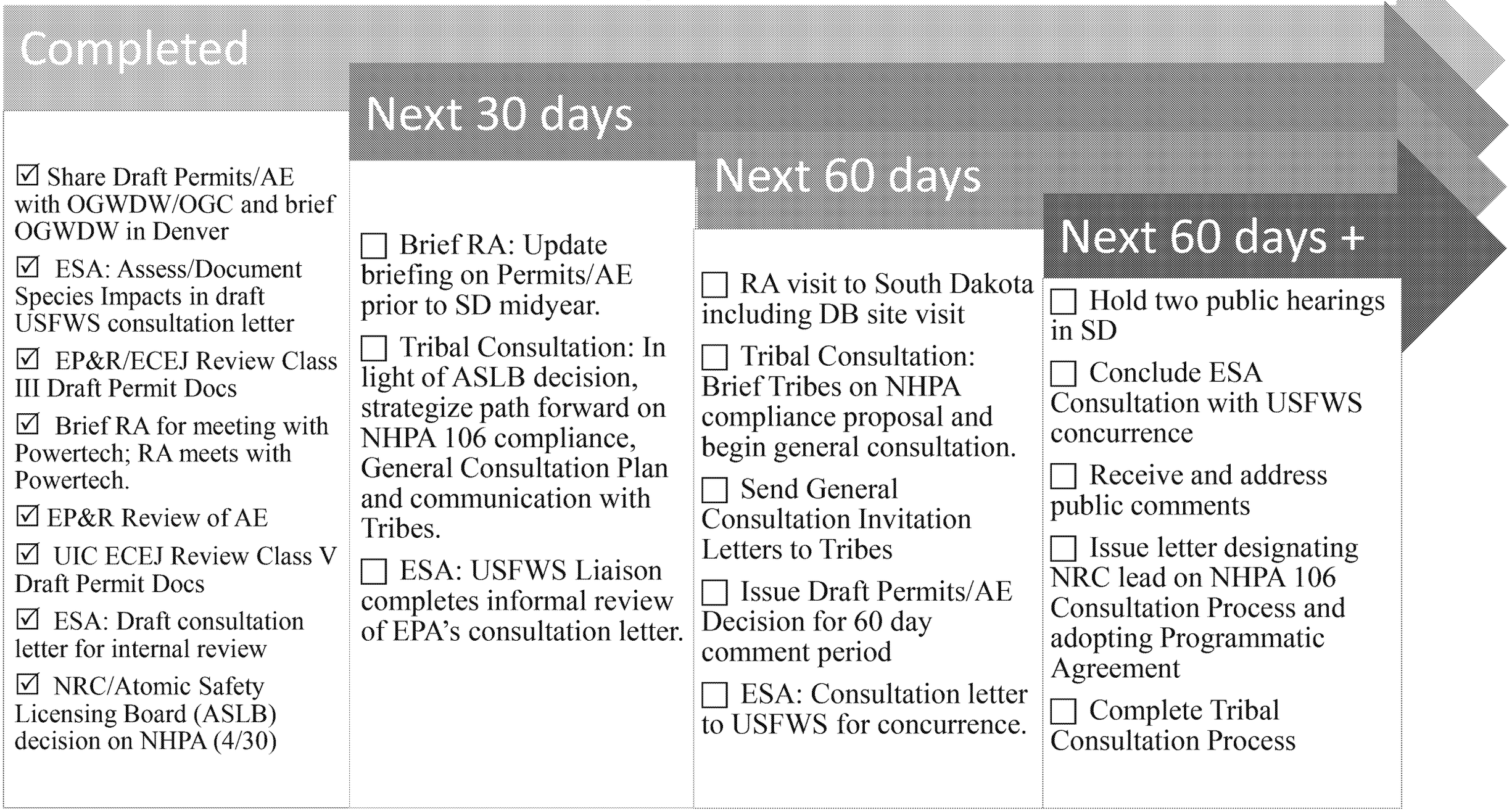


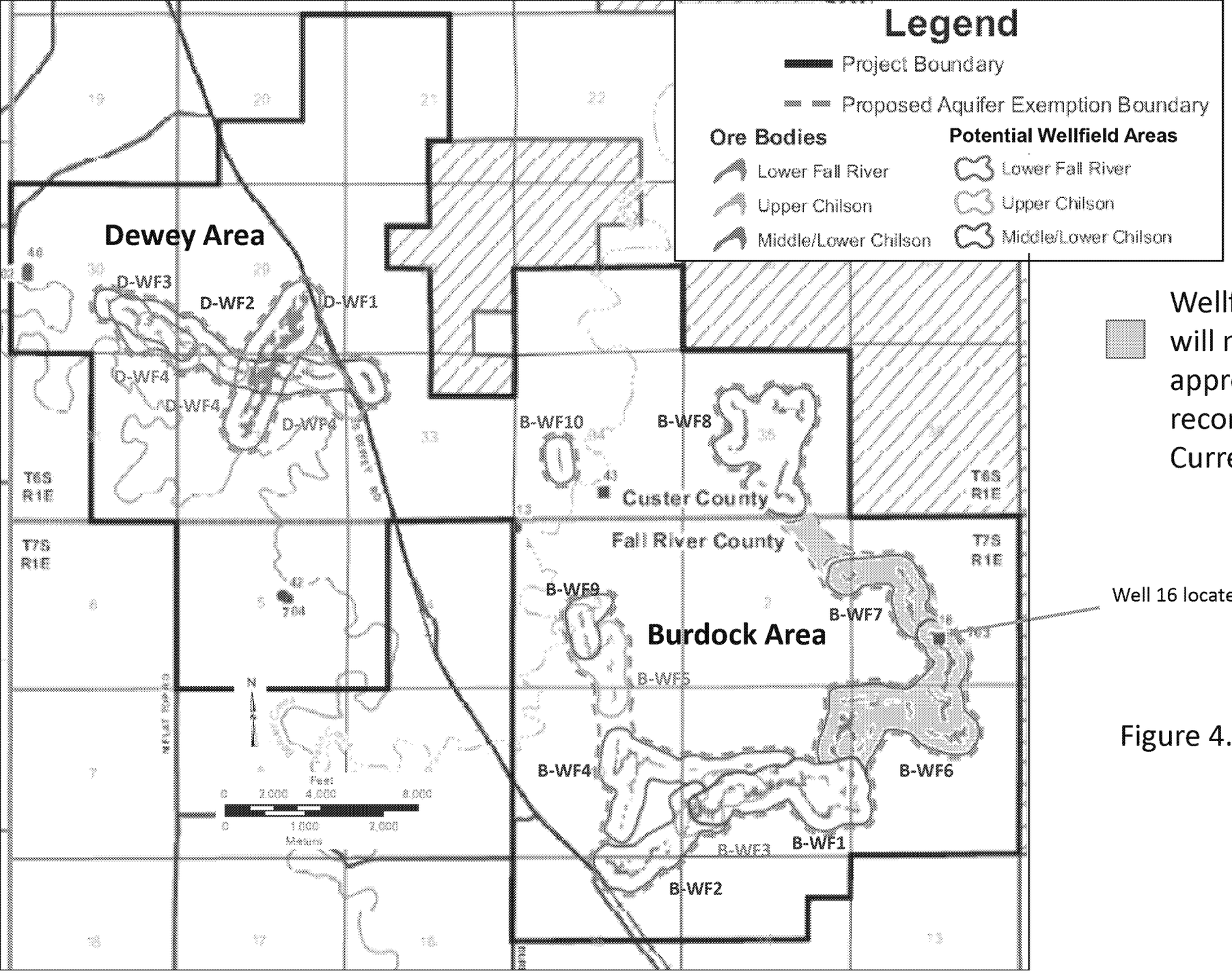
Figure 2. Proposed Wellfields and Abandoned Mine Locations

Figure 3. Timeline

DELIBERATIVE



ED_005364I_00005305-00003



Wellfields and AE area that will not be included in the approved AE per recommended option under Current Source Issue.

Well 16 located inside the AE Area

Figure 4. Aquifer Exemption Boundary

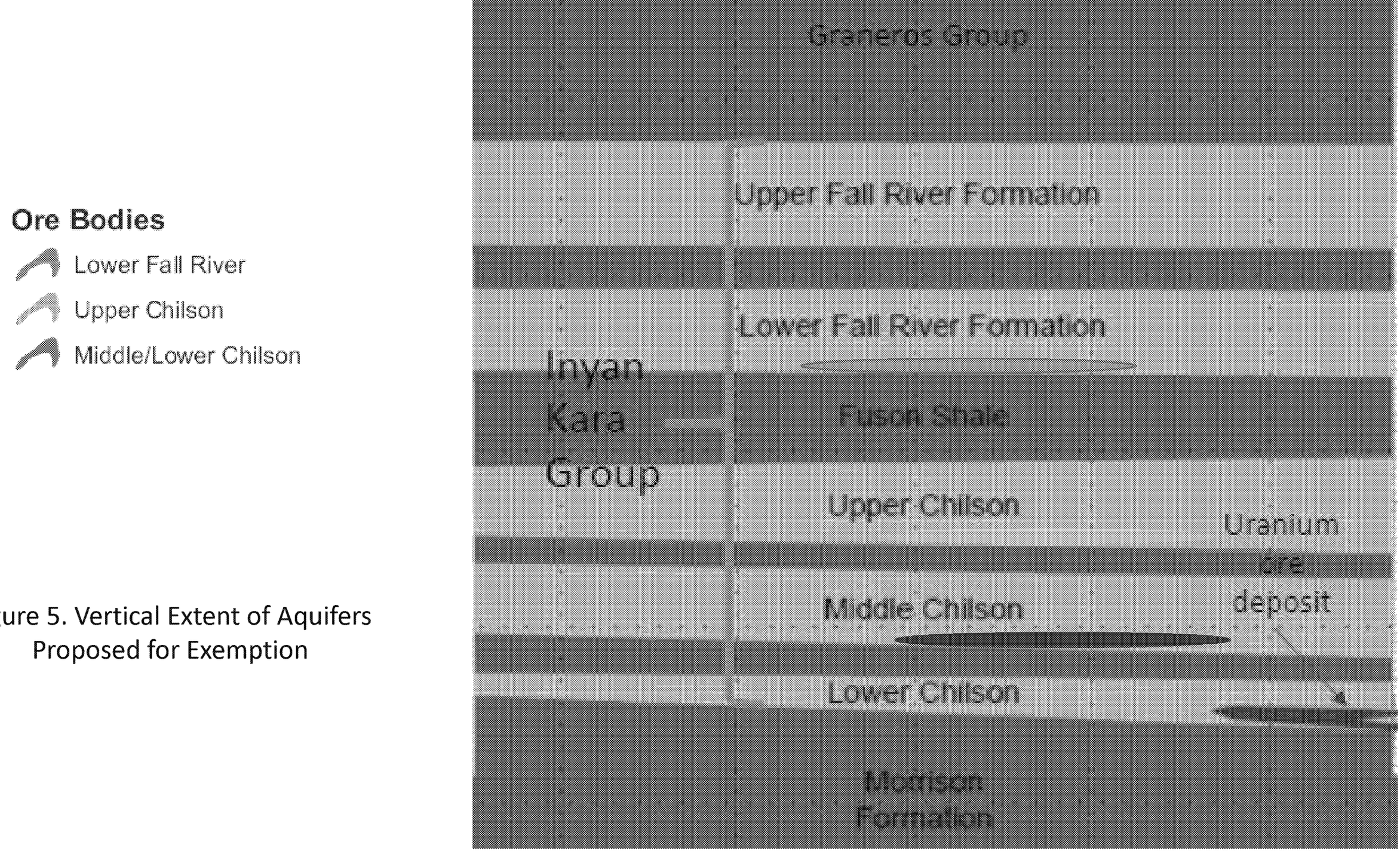


Figure 5. Vertical Extent of Aquifers Proposed for Exemption

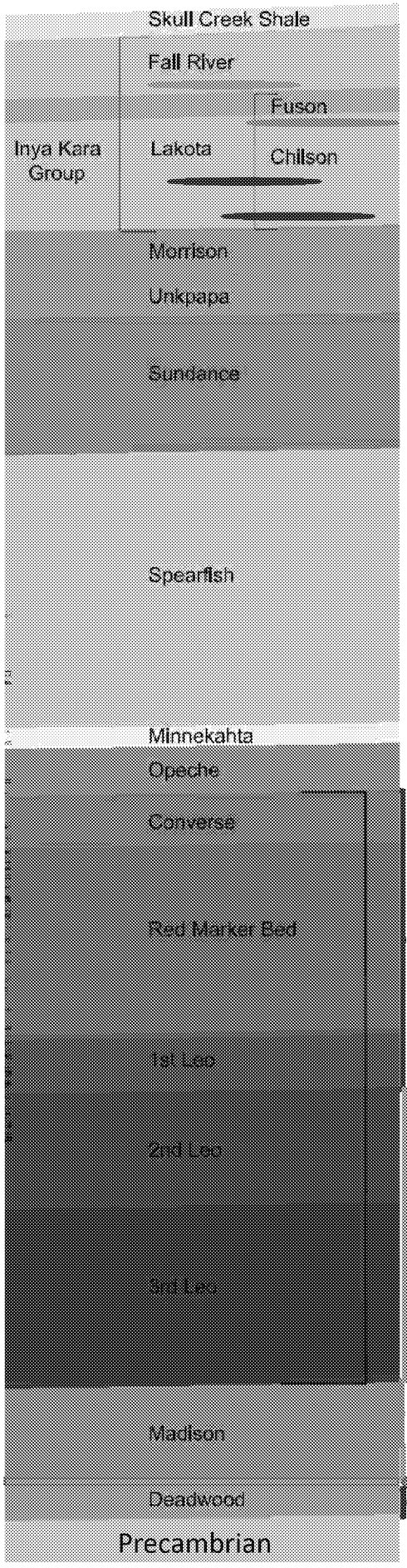


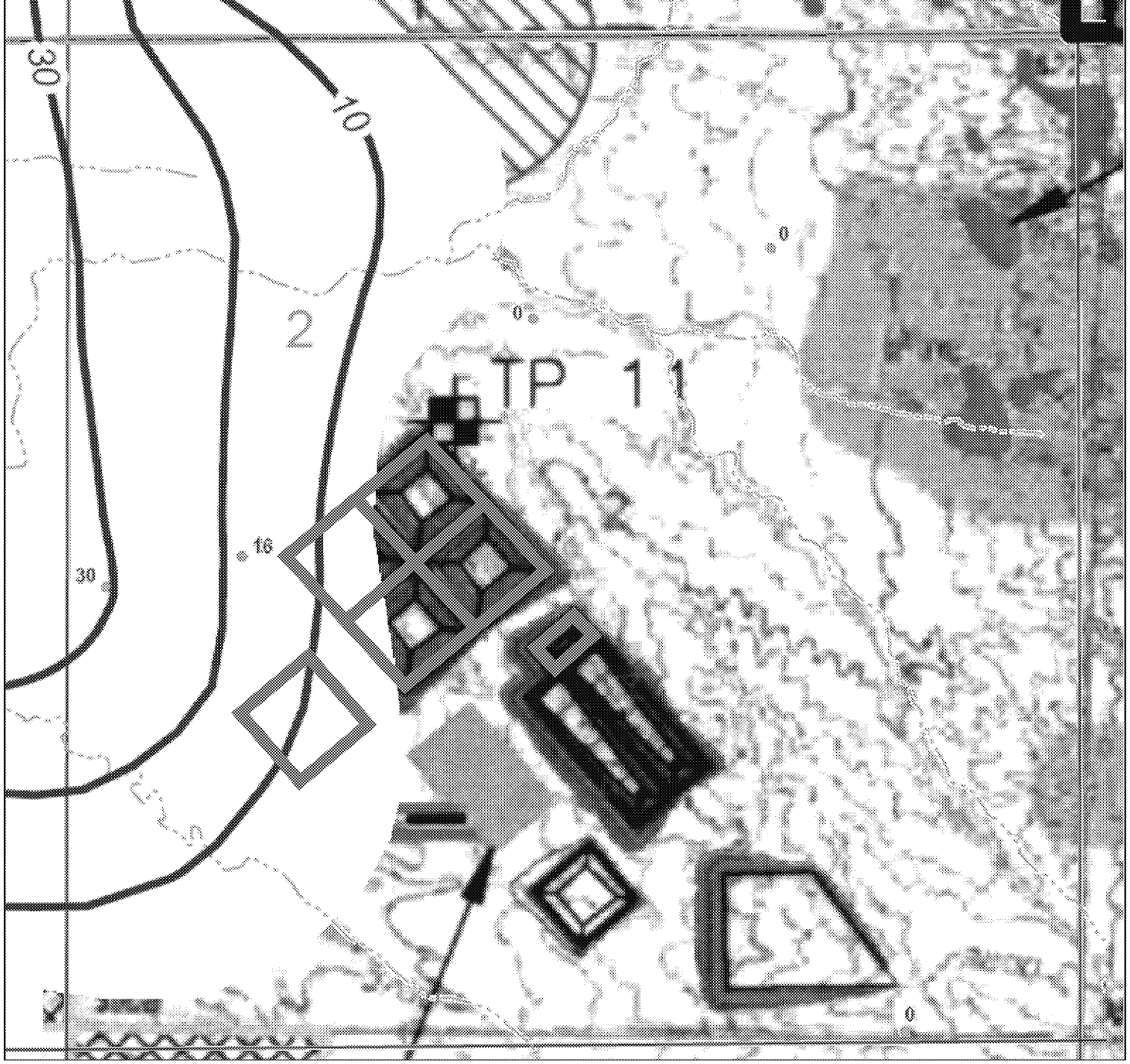
Figure 6. Stratigraphic Column at Dewey-Burdock Site Showing Class V Injection Zones

Minnelusa Injection Zone
~ 590 ft thick

Lower Minnelusa Confining Zone
~ 560 ft thick

Madison USDW ~200 ft thick

Lower Madison Confining Zone ~100 ft thick
Englewood Confining Zone ~35 ft thick
Deadwood Injection Zone ~100 ft thick



Legend

Permit Boundary

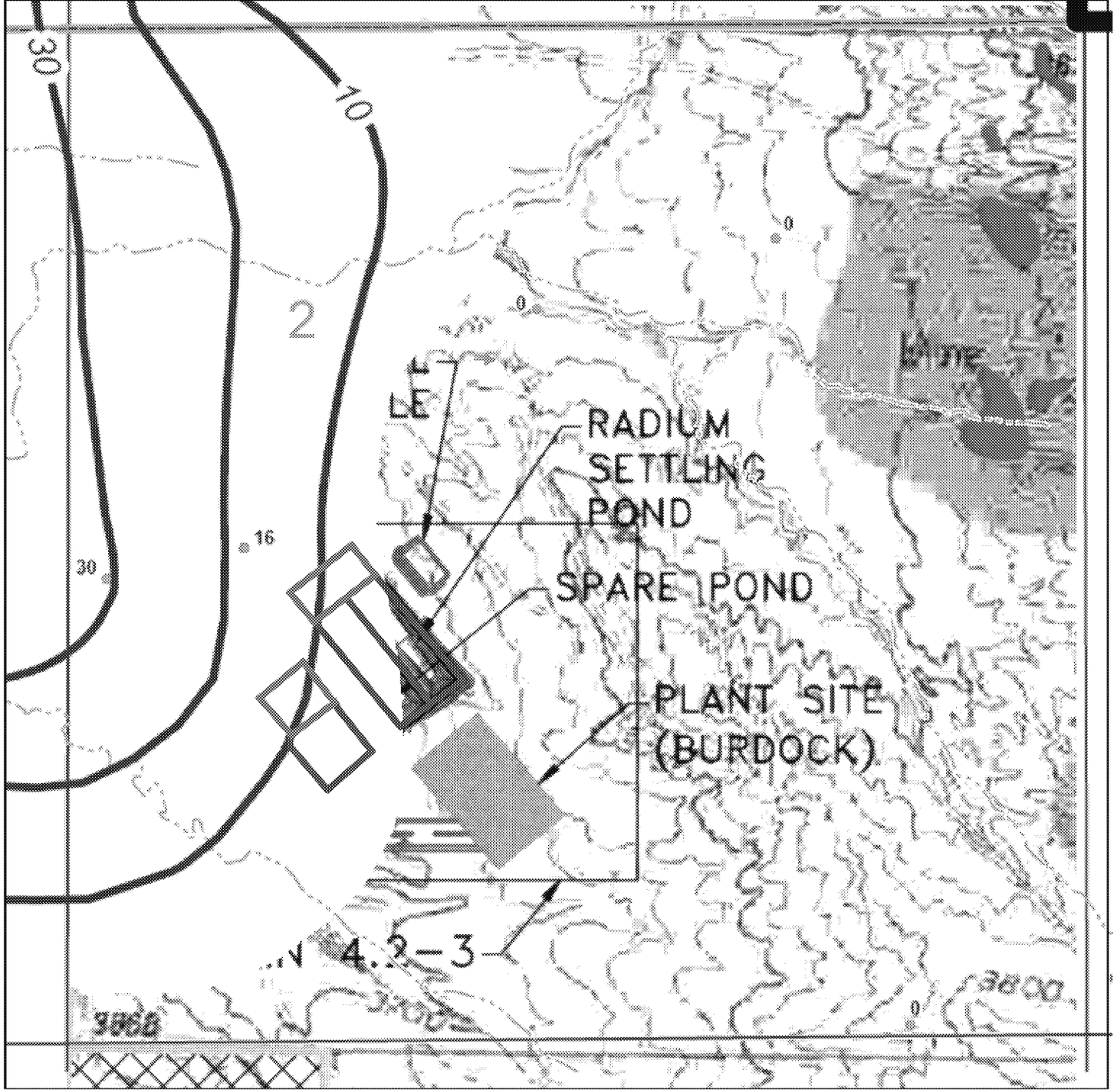
Alluvium Thickness (feet)

Alluvium

Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system

Black outline indicates double-lined pond with leak detection system

Figure 7.
Burdock Area Ponds - Land Application Scenario for ISR Process Waste Fluids



Legend

Permit Boundary

Alluvium Thickness (feet)

Alluvium

Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system

Blue outline indicates double-lined pond with leak detection system

Figure 8.
Burdock Area Ponds -
Deep Class V Disposal Well
Scenario for ISR Process
Waste Fluids

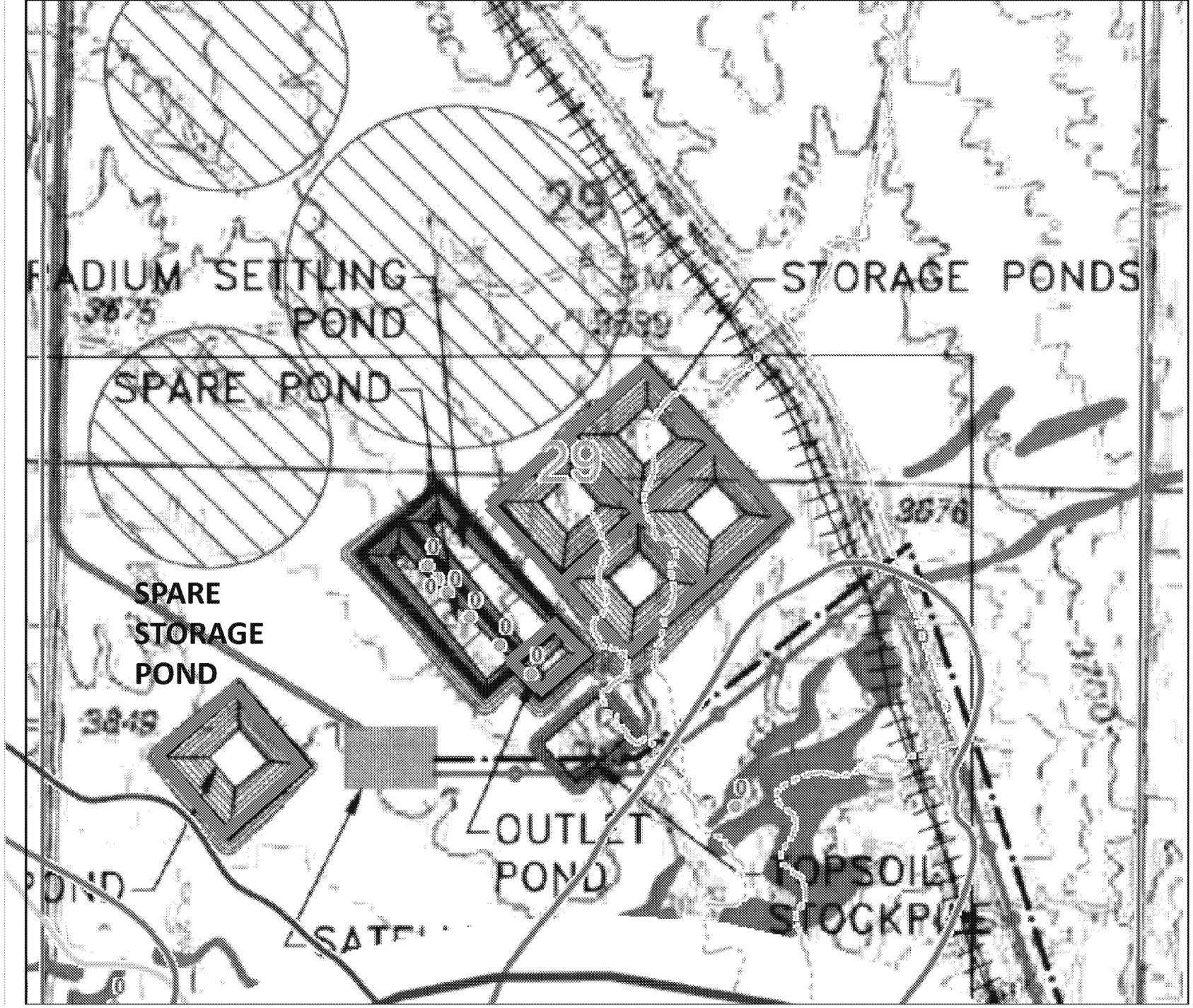
Legend

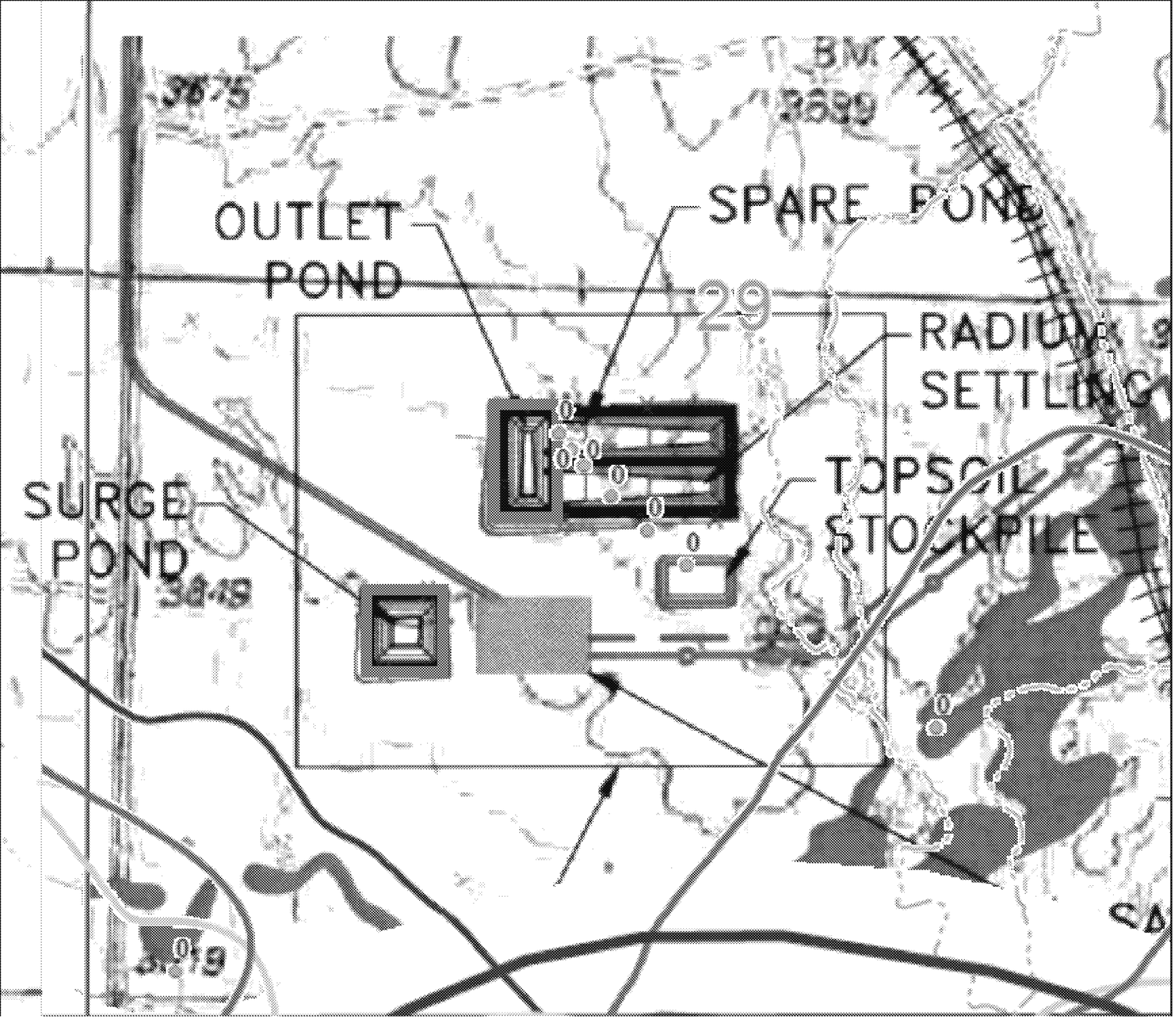
Alluvium

Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system

Black outline indicates double-lined pond with leak detection system

Figure 9.
Dewey Area Ponds –
Land Application Scenario
for ISR Process Waste
Fluids





Legend

Alluvium

Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system

Black outline indicates double-lined pond with leak detection system

Figure 10.
Dewey Area Ponds –
Deep Class V Disposal Well
Scenario for ISR Process
Waste Fluids